

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Chang et al. (SANDP015)

Conf. No. 7791

Serial No. 10/092,049

Group Art Unit: 2132

Filed: March 4, 2002

Examiner: Lemma

For: Implementation of Storing Secret Information in Data Storage Reader Products

REPLY BRIEF

Commissioner for Patents

Washington, DC 20231

Dear Sir:

Appellants respectfully present their brief in reply to the Examiner's Answer mailed May 31, 2007 in this appeal.

Appellants stand by their arguments as presented in the Appellants' Brief filed January 17, 2007. This reply brief is presented to respond to the Examiner's response to Appellants' arguments, for the benefit of the Board.

Argument

Regarding claim 1 and its dependent claims

To summarize, in their main brief, Appellants asserted the following reasons why one of ordinary skill in the art would not have obviously modified the teachings of the Jones et al. reference¹ in the manner asserted by the Examiner in the final rejection, namely by inserting a

¹ U.S. Patent No. 6,623,637, issued April 22, 1997 to Jones et al.

flash memory device into a reader as allegedly taught by the Tatebayashi et al. reference² in order to “authenticate the flash memory with the reader”:

1. There is no need to “authenticate the flash memory with the reader” according to the teachings of the Jones et al. reference, because the flash memory and the alleged reader (*i.e.*, the smartcard integrated circuit) are embodied into the same physical object –a detachable PCMCIA card.³
2. There is no motivation to modify the Jones et al. detachable memory card by detaching its flash memory array from the smartcard integrated circuit in that detachable memory card, given the teachings of the Jones et al. reference itself⁴ regarding the convenience of its “credit-card” size detachable PCMCIA memory card.⁵
3. The differences between the invention of claim 1 and the prior art, properly combined, are sufficiently substantial and important as to support a finding that these claims are patentable, particularly in connection with the two levels of security provided by this invention.⁶

The Examiner responded directly to the second of these points⁷, by attempting to refute Appellants’ reasoning for the absence of such motivation. Appellants will respond to that attempted refutation in this reply brief. Appellants will also address the Examiner’s attempt to characterize the differences between the claims and the prior art as insubstantial.

Absence of motivation to combine or modify the references

Appellants argued, in their main brief, that the Tatebayashi et al. reference fails to provide motivation to the skilled artisan to modify to separate the flash memory storage array of the Jones et al. reference from the rest of its detachable memory card, because the purpose of the

² U.S. Patent No. 6,859,535, issued February 22, 2005 to Tatebayashi et al., from an application filed October 15, 1999.

³ Appellants’ Brief of January 17, 2007, page 7.

⁴ See Jones et al., *supra*, column 3, lines 50 through 55.

⁵ Appellants’ Brief, *supra*, pages 7 through 9.

⁶ Appellants’ Brief, *supra*, pages 9 and 10.

⁷ But not to the first point regarding the absence of any *need* to authenticate the flash memory with the reader according to Jones et al.

system and method of the Tatebayashi et al. reference is to provide a digital rights management system for flash memory cards.⁸ Appellants pointed to “headphone stereo 401” of the Tatebayashi et al. reference as the alleged “reader”, and pointed out that this reader operates in a stand-alone sense because it is not connected to a host computer when it is playing the audio contents of the memory card.⁹

The Examiner’s Answer cites an alternative teaching of the Tatebayashi et al. reference as teaching an access device that “doubles as the memory card writer and the memory card reader”, into which a memory card is inserted and which itself is inserted into a host computer.¹⁰ The Examiner asserted that this teaching of the Tatebayashi et al. reference refutes Appellants’ argument regarding the absence of motivation, from the Tatebayashi et al. reference, to modify the teachings of Jones et al.¹¹

In reply, Appellants acknowledge this teaching of the Tatebayashi et al. reference, but assert that this alternative teaching provides no further motivation to the skilled artisan than does the remainder of the reference. According to the “Figure 2” passage of the Tatebayashi et al. reference cited in the Examiner’s answer, the host “personal computer 500” plays no role in the playback of the content from the memory beyond that played by the “headphone stereo 401” shown in Figure 3 of the reference and reproduced in Appellants’ Brief.¹² Specifically regarding the use of “personal computer 500” as the playback device, this passage of the Tatebayashi et al. reference expressly states:

Also, with the personal computer **500**, the user obtains contents from the memory card through the mediation of the access device and reproduces the obtained contents.¹³

⁸ See Tatebayashi et al., *supra*, column 1, lines 9 through 25.

⁹ Appellants’ Brief, *supra*, pages 9 and 10, referring to Tatebayashi et al., *supra*, column 8, lines 35 through 43; Figure 3.

¹⁰ Examiner’s Answer of May 31, 2007, pages 7 through 10, citing Tatebayashi et al., *supra*, column 51, line 64 through column 52, line 11; Figure 2.

¹¹ *Id.*

¹² Appellants’ Brief, *supra*, page 8.

¹³ Tatebayashi et al., *supra*, column 52, lines 8 through 11.

Accordingly, Appellants submit that the alternative teaching now asserted by the Examiner regarding Figure 2 of the Tatebayashi et al. reference adds no material motivation or suggestion to modify the Jones et al. reference, beyond that of the remainder of the reference.

But regardless of whether the Tatebayashi et al. reference teaches inserting a reader into a host computer, the Examiner's Answer fails to address the larger question raised by Appellants in their brief:

How would this portable stereo system motivate the skilled artisan to separate the flash memory from the smartcard integrated circuit in the PCMCIA card of the Jones et al. reference?¹⁴

or, considering the teachings of the Figure 2 passage of the Tatebayashi et al. reference:

How would either the portable stereo system or the personal computer system of Figure 2 of Tatebayashi et al. motivate the skilled artisan to separate the flash memory from the smartcard integrated circuit in the PCMCIA card of the Jones et al. reference?

The Examiner provides no persuasive answer in this regard, as will now be discussed.

The Examiner asserted that the skilled artisan would be motivated to modify the Jones et al. reference to combine the inserting of a flash memory storage device into the reader, as taught by Tatebayashi et al., "in order to authenticate the flash memory with the reader".¹⁵ The Examiner then poses the question of whether there is any advantage or motivation to implement the reader and smart card, or flash memory and common array memory, of Jones et al. "without enclosing them in the card 100 so that this memory array/flash memory is inserted into the smart card 250?"¹⁶, to which the Examiner answers yes, because:

. . . such combination would allow the common memory array of Jones et al. to be inserted into the reader/smartcard of Jones instead of putting them together in the card shown on Figure 1, ref. Num 100, so that the two entities the common array shown on figure 1, 150 and the smartcard shown on figure 1, 250, authenticate each other. And the authentication of the two entities provides the technical

¹⁴ Appellants' Brief, *supra*, page 9.

¹⁵ Examiner's Answer, *supra*, page 5.

¹⁶ *Id.*, at page 14.

*benefit of preventing contents that are properly downloaded from being used without proper authorization.*¹⁷

In other words, the Examiner asserts that one would be motivated by the Tatebayashi et al. reference to separate the flash memory of the Jones et al. reference from its alleged reader so that the two could authenticate each other. Appellants submit again, however, that there is no need for the smartcard integrated circuit (250) and the flash memory array (150) of Jones et al. to authenticate one another because they are enclosed in the same PCMCIA card (100), and cannot be separated from one another. This renders the Examiner's alleged motivation to be purely circular: the Examiner claims that one would be motivated to separate the flash memory array from the smartcard IC so that the two could authorize one another, which is required because the flash memory array is now separate from the smartcard IC. This begging-of-the-question provides no motivation whatsoever to separate the two elements of the Jones et al. PCMCIA card from one another in the first place, and therefore provides no motivation whatsoever to modify the teachings of the Jones et al. reference to provide the missing inserting step.

It is impermissible to use hindsight reconstruction to pick and choose among teachings in the prior art, in order to piece together a claimed invention for purposes of finding claims obvious.¹⁸ Because motivation to make the alleged modification is lacking in this case, for the reasons stated previously and re-stated above, Appellants submit that the final rejection of claim 1 and its dependent claims, as unpatentable over the combination of the Jones et al. and Tatebayashi et al. reference, could only have been made through the improper hindsight use of Appellants' own teachings.

Appellants wish to also emphasize that the Examiner carries the burden of making a *prima facie* obviousness determination that the claims are obvious.¹⁹ Appellants have previously argued that, because the alleged suggestion or motivation to combine references is in error, the Examiner has failed to establish this *prima facie* case of obviousness. However, the Examiner's response to Appellants' assertion in this regard was primarily to attack Appellants' reason why

¹⁷ *Id.*, at page 15 (emphasis in original).

¹⁸ *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir., 1992); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

¹⁹ *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993).

motivation to modify the teachings of Jones et al. is lacking. Even if the Examiner was successful in this regard,²⁰ the Examiner is still required to carry the burden of the *prima facie* obviousness determination. It is the Examiner's burden to show *prima facie* obviousness; not Appellants' burden to show its absence. The Examiner has not carried this burden in this case.

Substantiality of the differences between the claimed invention and the prior art

In their main brief, Appellants also submitted that the differences between the invention of claim 1 and the prior art, properly combined, are sufficiently substantial and important as to support a finding that these claims are patentable. Specifically, Appellants urged that the two levels of security provided by this invention are a substantial improvement over the single levels of security provided by the Jones et al. and Tatebayashi et al. references.²¹ The Jones et al. reference provides only a password security mechanism, while the Tatebayashi et al. reference indicates that possession of an authentic reader for an authentic card serves the desired security purpose for access to the card contents, namely preventing illegally obtained contents from being reused. Neither reference suggests providing an additional level of security.

The Examiner disagreed with this assessment. In so doing, the Examiner asserted that the Jones et al. reference teaches the prompting of the user for a password which, when valid, enables decrypting of the memory contents.²² This is exactly right: as Appellants said in their main brief, the Jones et al. reference provides only the single security level of a password security mechanism. It is unclear how the Examiner interprets this teaching of the Jones et al. reference, regarding its single security level, so that it renders the differences between the claims and the prior art to be insubstantial. And in fact, this teaching does not.

Furthermore, the Examiner goes on to assert that Appellants targeted the applied references individually rather than in combination. Appellants stand by their arguments.

²⁰ Which Appellants do not admit, as asserted above.

²¹ Appellants' Brief, *supra*, pages 9 and 10.

²² Examiner's Answer, *supra*, page 20.

In summary

For these reasons, Appellants maintain that the final rejection of claim 1 and each of its dependent claims 3, 5 through 8, 11 and 12 is in error and should be reversed.

Regarding claim 13 and its dependent claims

The Examiner asserted that the argument presented in the Examiner's Answer relative to claim 1 is also applicable to Appellants' arguments regarding claim 13 and its dependent claims.

And Appellants similarly assert that their arguments presented in this Reply Brief directed to claim 1 and its dependent claims are also applicable to the Examiner's stated position regarding claim 13 and its dependent claims.

To briefly summarize, Appellants submit that the Tatebayashi et al. reference provides no motivation, to the skilled artisan, to modify the teachings of the Jones et al. reference to provide a flash memory reader that has an interface for receiving a flash memory storage device, as recited in claim 13. This "interface for receiving" is absent from the Jones et al. reference because the flash memory storage array is embodied with its smartcard integrated circuit within a single physical PCMCIA card that is itself detachable from and insertable into the host personal computer.²³ There is no physically separate flash memory reader disclosed in the Jones et al. reference, separate in the sense that a flash memory storage device can be received into an interface of that reader.

Appellants maintain that the motivation alleged by the Examiner to make this modification, namely to "authenticate the flash memory with the reader" is wholly absent from the Jones et al. system because its flash memory array and its smartcard integrated circuit (*i.e.*, the alleged reader) are embodied into the same physical object—a detachable PCMCIA card.²⁴

The Examiner asserted that the Figure 2 passage of the Tatebayashi et al. reference destroys Appellants previous argument in this regard, by showing a personal computer 500 with an insertable "access device" doubling as a memory card writer and a memory card reader, and

²³ Jones et al., *supra*, column 3, lines 16 through 49.

²⁴ Appellants' Brief of January 17, 2007, page 7.

into which a memory card inserts.²⁵ As urged above in this Reply Brief relative to claim 1, Appellants submit that this alternative teaching provides no further motivation to the skilled artisan than does the remainder of the reference, because that host “personal computer 500” plays no role in the playback of the content from the memory beyond that played by the “headphone stereo 401” shown in Figure 3 of the reference.

But more pertinent to the issue at hand, this alleged alternative teaching of the Tatebayashi et al. reference adds nothing to bolster the alleged motivation to modify the Jones et al. teachings “in order to authenticate the flash memory with the reader”.²⁶ As stated above, Appellants submit that the Examiner’s position is effectively that one would be motivated, by the Tatebayashi et al. reference, to modify the Jones et al. teachings to separate the flash memory array from the smartcard IC so that the two could authorize one another, which has become required because the flash memory array is now separate from the smartcard IC. As before, Appellants submit that this circular reasoning provides no motivation whatsoever to separate the two elements of the Jones et al. PCMCIA card from one another in the first place, and therefore provides no rational motivation to modify the Jones et al. reference in such a manner as to reach claim 13 and its dependent claims.

Appellants further maintain that the important advantages of the invention are sufficiently substantial as to support their patentability over the prior art. The quoted portion of the Jones et al. reference presented by the Examiner does nothing to disturb this substantiality, nor does the conclusory argument regarding whether Appellants targeted the cited references individually rather than in combination.

For these reasons, Appellants submit that the final rejection of claim 13 and each of its dependent claims 17 through 24 is in error and should be reversed.

²⁵ Examiner’s Answer, *supra*, pages 7 through 10, citing Tatebayashi et al., *supra*, column 51, line 64 through column 52, line 11; Figure 2.

²⁶ Examiner’s Answer, *supra*, page 5.

For the foregoing reasons, in addition to those presented in the Appellants' Brief of January 17, 2007, Appellants respectfully maintain that the final rejection under §103 of claims 1 through 3, 5 through 8, 11 through 13, and 17 through 24 is in error. Reversal of the final rejection of the claims in this case is therefore respectfully requested.

Respectfully submitted,

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